

AMENDMENTS TO THE CLAIMS

Applicant submits below a complete listing of the current claims, including marked-up claims with insertions indicated by underlining and deletions indicated by strikeouts and/or double bracketing. This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of the Claims

1. (Currently amended) A method comprising:

~~for transmitting digital messages~~ which are representative of first specific events depending on the execution of an instruction sequence by the microprocessor to an analysis tool through output terminals of a monitoring circuit integrated with a microprocessor; ~~the digital messages being representative of first specific events depending on the execution of an instruction sequence by the microprocessor, comprising:~~

transmitting to the monitoring circuit, through dedicated accesses; a request signal for the sending of a message associated with a specific event from ~~among~~ second specific events which are independent from the execution of the instruction sequence by the microprocessor; and a signal of characteristic data associated with said specific event from said second specific events;

having the monitoring circuit read said request message and, if resource management conditions are fulfilled, transmitting through a dedicated access an acknowledgement message, and storing said characteristic data signal; and

transmitting a digital message representative of the stored characteristic data signal to the analysis tool.

2. (Currently amended) The method of claim 1, in which the resource management conditions are fulfilled when the monitoring circuit is not transmitting digital messages representative of the first specific events.

3. (Previously presented) The method of claim 1, in which the digital message representative of the stored data signal comprises an identifier and the characteristic data signal.

4. (Currently amended) The method of claim 1, in which the characteristic data (~~DATA~~) signal corresponds to the values on input terminals of the microprocessor.

5. (Currently amended) A device for transmitting digital messages between a monitoring circuit integrated with a microprocessor and an analysis tool, comprising:

a monitoring circuit;

an analysis tool;

means for transmitting first digital messages being representative of first specific events depending which depend on the execution of an instruction sequence by the microprocessor[[]]; comprising:

means for detecting a specific event from ~~among~~ second specific events which are independent from the execution of the instruction sequence by the microprocessor; and

means for transmitting a request for transmitting to the monitoring circuit, when a specific event is detected, a request signal and a characteristic data signal associated with said specific event from said second specific events;

wherein the monitoring circuit comprises means for storing the characteristic data signal provided by the request transmission means, means for transmitting to the request transmission means an acknowledgement signal when the characteristic data signal is stored, and means for transmitting a digital message ~~from~~ representative of said stored characteristic data signal to the analysis tool.

6. (Previously presented) The device of claim 5, in which the detection means, the request transmission means, the monitoring circuit, and the microprocessor are integrated in a same chip.

7. (Previously presented) The device of claim 5, in which the detection means is connected to input terminals of the microprocessor.